

#2



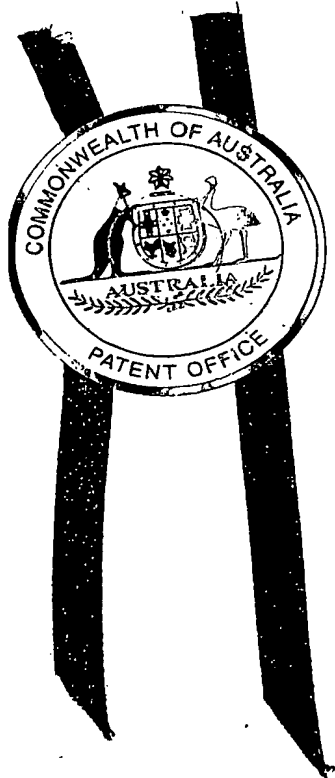
REC'D 07 AUG 2003

WIPO PCT

**PRIORITY  
DOCUMENT**  
SUBMITTED OR TRANSMITTED IN  
COMPLIANCE WITH RULE 17.1(a) OR (b)

Patent Office  
Canberra

I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND  
SALES hereby certify that annexed is a true copy of the Provisional specification  
in connection with Application No. 2002300193 for a patent by TREDEX PTY  
LIMITED as filed on 19 July 2002.



WITNESS my hand this  
Twenty-eighth day of July 2003

*J. Billingsley*

JULIE BILLINGSLEY  
TEAM LEADER EXAMINATION  
SUPPORT AND SALES

BEST AVAILABLE COPY

The present invention relates to a waste recycling bin and, in particular, to an office receptacle for separating used or discarded office paper from other waste in an office.

Commonly, waste office paper is discarded by an office worker in simple open bins. Accompanying the waste office paper in the bins may be other refuse, such as food scraps, office items such as discarded paper clips and writing implements, and a range of other items that may or may not be of a recyclable nature. Where an effort is made in the office to separate recyclable items from non-recyclable items, the usual approach has been to provide a dedicated bin for each form of recyclable item. In its most basic form, the approach may simply require a bin for recyclable waste paper and a bin for all other items, such as food scraps, plastic, glass, wood, or metal, which may then be separated outside the office into recyclable and non-recyclable items. However, such an approach has met with limited success as it is conditional on the office worker making the effort to provide separate bins at easily accessible, preferably close together, locations and then ensuring that waste is properly distributed in the appropriate bins. The problem may be heightened by bins going missing, or having bins with insufficient capacity or holding volume for the type of item disposed of therewithin which may lead to an office worker choosing to discard, say, food scraps in the waste paper bin if the food scraps bin is full.

It is, therefore, an object of the present invention to provide a waste recycling bin which can readily separate therewithin one form of waste, such as used or discarded office paper, from other forms of waste, for the purpose of facilitating the recycling of at least some of the waste.

Further preferred objects of the invention are that the waste recycling bin be adapted for location adjacent an office desk, be stackable for ease of

transportation and storage, and be able to hold, in separate compartments within the bin, the normally expected volume of waste disposed of on a daily basis.

According to the present invention there is provided a waste recycling  
5 bin comprising a first compartment adapted to receive a first form of waste, and at least a second compartment adapted to receive a second form of waste, the first compartment including a main body with a rim defining an opening of the main body, the second compartment including a main body with an opening and rim engaging means for supporting the second compartment against a  
10 portion of the rim of the first compartment so that the bin assumes an operable condition where the first and second forms of waste are receivable through the openings of respective first and second compartments.

Preferably, the rim engaging means of the second compartment is so supported against a portion of the rim of the first compartment that at least a  
15 part of the main body of the second compartment descends from the rim into the main body of the first compartment.

It is preferred that the rim engaging means defines a portion of the opening of the main body of the second compartment.

In a preferred form, the portion of the rim of the first compartment that  
20 supports the rim engaging means of the second compartment is elevated from a remaining portion of the rim.

Preferably, the elevated portion of the rim of the first compartment is so disposed with respect to the remaining portion of the rim that there are two openings to the first compartment on opposed sides of the second  
25 compartment.

The second compartment is preferably adapted to be released from the rim of the first compartment and orientated such that it can be supported

adjacent a floor of the first compartment whereby the bin assumes a nested condition. Optionally, a first compartment may be stacked within another first compartment from which a second compartment has been removed, whereby the first compartments assume a stacked condition.

5           In order that the invention may be readily understood and put into practical effect, reference will now be made to the accompanying drawings, in which:-

10           Fig. 1 is a perspective view of a waste recycling bin according to a preferred embodiment of the invention in an operable condition for receiving first and second forms of waste separately therewithin,

Fig. 2 is a more elevated perspective view of the bin of Fig. 1,

Fig. 3 is a perspective view of the bin of Fig. 1 in which the first and second compartments are shown separated,

15           Fig. 4 is an end view of the bin of Fig. 1,

Fig. 5 is a sectional view taken through V-V of the bin shown in Fig. 4,

Fig. 6 is a side view of the bin of Fig. 1,

Fig. 7 is a sectional view taken through VII-VII of the bin shown in Fig. 6,

20           Fig. 8 is a plan view of a waste recycling bin according to another embodiment of the invention, but in a nested condition,

Fig. 9 is a sectional view taken through IX-IX of the bin shown in Fig. 8, and

25           Fig. 10 is a side view of a stacked arrangement of first compartments of the bin shown in Fig. 8.

The waste recycling bin 10 shown in an operable condition in Figs. 1, 2 and 4 to 7 has a first or primary compartment 12 and a second or secondary compartment 14 (shown separated from each other in Fig. 3). The primary compartment 12 is adapted to receive waste office paper and the secondary compartment 14 is adapted to receive items for which recycling may not be required, such as food scraps, drink containers and discarded office items. If food scraps are to be received in the secondary compartment, it should be lined with a plastic bag.

The primary compartment 12 has a main body 16 with a rim 18 defining an opening 20 of the main body 16. The secondary compartment 14 also has a main body 22 with an opening 24 and rim engaging means in the form of outwardly projecting flange portions 26, 28 on opposed sides of the opening 24 which are supported against respective elevated portions 30, 32 of opposed sides of the rim 18. In this way, all of the main body 22 of the secondary compartment 14 descends from the elevated portions 30, 32 of the rim 18 into the main body 16 of the primary compartment 12. Each of the elevated portions 30, 32 are located intermediate the opposed ends of their respective rim segment 34, 36 provided by the linear upper edges of their respective side walls 38, 40 of the main body 16 of the primary compartment 12. The portions of the rim segment 34 located on opposed sides of the elevated portion 30 are downwardly sloping and the portions of the rim segment 36 located on opposed sides of the elevated portion 32 are downwardly sloping, with the result that the rim segments 42, 44 provided by the linear upper edges of their respective end walls 46, 48 of the main body 16 of the primary compartment 12 are below the opening 24 of the secondary compartment 14 whereby, when the secondary compartment 14 is supported against the elevated rim portions 30, 32 of the primary compartment 12, there are two openings 50, 52 to the

primary compartment 12 on opposed sides of the secondary compartment 14 for receiving paper therethrough.

There are grip facilitating apertures 54, 56 cut out of respective end walls 46, 48, and a hand guard 57 connected to the upper edge of each of the apertures 54, 56.

The depth, and hence holding capacity, of the secondary compartment 14 is substantially less than that of the primary compartment 12 (as clearly shown in Fig. 5), and so the floor 58 of the secondary compartment 14 is considerably raised from the floor 60 of the primary compartment 12 when the bin 10 is in an operable condition.

The volume of the space 62 defined between the floors 58 and 60 has the capacity to hold slightly less than three standard reams of A4 size paper when each discarded paper is laid flat upon the preceding one. The discarded paper is conveniently inserted by the office worker through either of the two openings 50, 52, either from directly above or from the side of the openings remote of the bin 10 given the angulature of the openings 50, 52.

Once released from the office worker's grip, the paper will be directed to fall in a line through a selected passageway 54, 56 between the main body 22 of the secondary compartment 14 and the main body 16 of the primary compartment 12, before settling flat upon the floor 60 or other flatly laid paper. This is facilitated by the opposed bevelled corner surfaces 66, 68 of the secondary compartment 14.

Another embodiment of a waste recycling bin 100 is shown in a nested condition in Figs. 8 to 10. Like numerals have been used to refer to like features in Figs. 8 to 10. The bin 100 has had all waste removed therefrom and the secondary compartment 14 has been released from the elevated rim portion 30, 32 of the primary compartment 12 and is now supported adjacent

the floor 60 of the primary compartment 12. In order to be supported adjacent the floor 60, the secondary compartment 14 must be raised sufficiently from the primary compartment 12 so that it can be turned 90° in a horizontal direction and then lowered within the primary compartment 12, whereby the closely  
5 corresponding dimensional configurations of the primary and secondary compartments 12, 14 allow the secondary compartment 14 to snugly fit by wedging action within the primary compartment 12, as particularly shown in Fig. 9, despite the floor 58 of the secondary compartment 14 being slightly elevated from the floor 60 of the primary compartment 12.

10 A plurality of primary compartments 12 of the bins 100 (with their secondary compartments 14 removed) may be nestable one within another to provide a stacked arrangement of primary compartments (as shown in Fig. 10) for ease of storage and transportation. A similar stacked arrangement of secondary compartments 14 can also be achieved.

15 Various modifications may be made in details of design and construction without departing from the scope and ambit of the invention.

**THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:**

1. A waste recycling bin comprising a first compartment adapted to receive a first form of waste, and at least a second compartment adapted to receive a second form of waste, the first compartment including a main body with a rim defining an opening of the main body, the second compartment including a main body with an opening and rim engaging means for supporting the second compartment against a portion of the rim of the first compartment so that the bin assumes an operable condition where the first and second forms of waste are receivable through the openings of respective first and second compartments.
2. The bin of claim 1 wherein the rim engaging means of the second compartment is so supported against a portion of the rim of the first compartment that at least a part of the main body of the second compartment descends from the rim into the main body of the first compartment.
3. The bin of claim 1 or claim 2 wherein the rim engaging means defines a portion of the opening of the main body of the second compartment.
4. The bin of any one of claims 1 to 3 wherein the portion of the rim of the first compartment that supports the rim engaging means of the second compartment is elevated from a remaining portion of the rim.

5. The bin of claim 4 wherein the elevated portion of the rim of the first compartment is so disposed with respect to the remaining portion of the rim that there are two openings to the first compartment on opposed sides of the second compartment.

Dated this 19th day of July 2002

**Tredex Pty Limited**

Patent Attorneys for the Applicant

**PETER MAXWELL & ASSOCIATES**

## ABSTRACT

A waste recycling bin (10) has a first compartment (12) adapted to receive a first form of waste, and at least a second compartment (14) adapted to receive a second form of waste. The first compartment (12) includes a main body (16) with a rim (18) defining an opening (20) of the main body (16). The second compartment (14) includes a main body (22) with an opening (24) and rim engaging means (26, 28) for supporting the second compartment (14) against a portion (30, 32) of the rim (18) of the first compartment (12). The bin (10) assumes an operable condition where the first and second forms of waste are receivable through the openings (20, 24) of respective first and second compartments (12, 14).

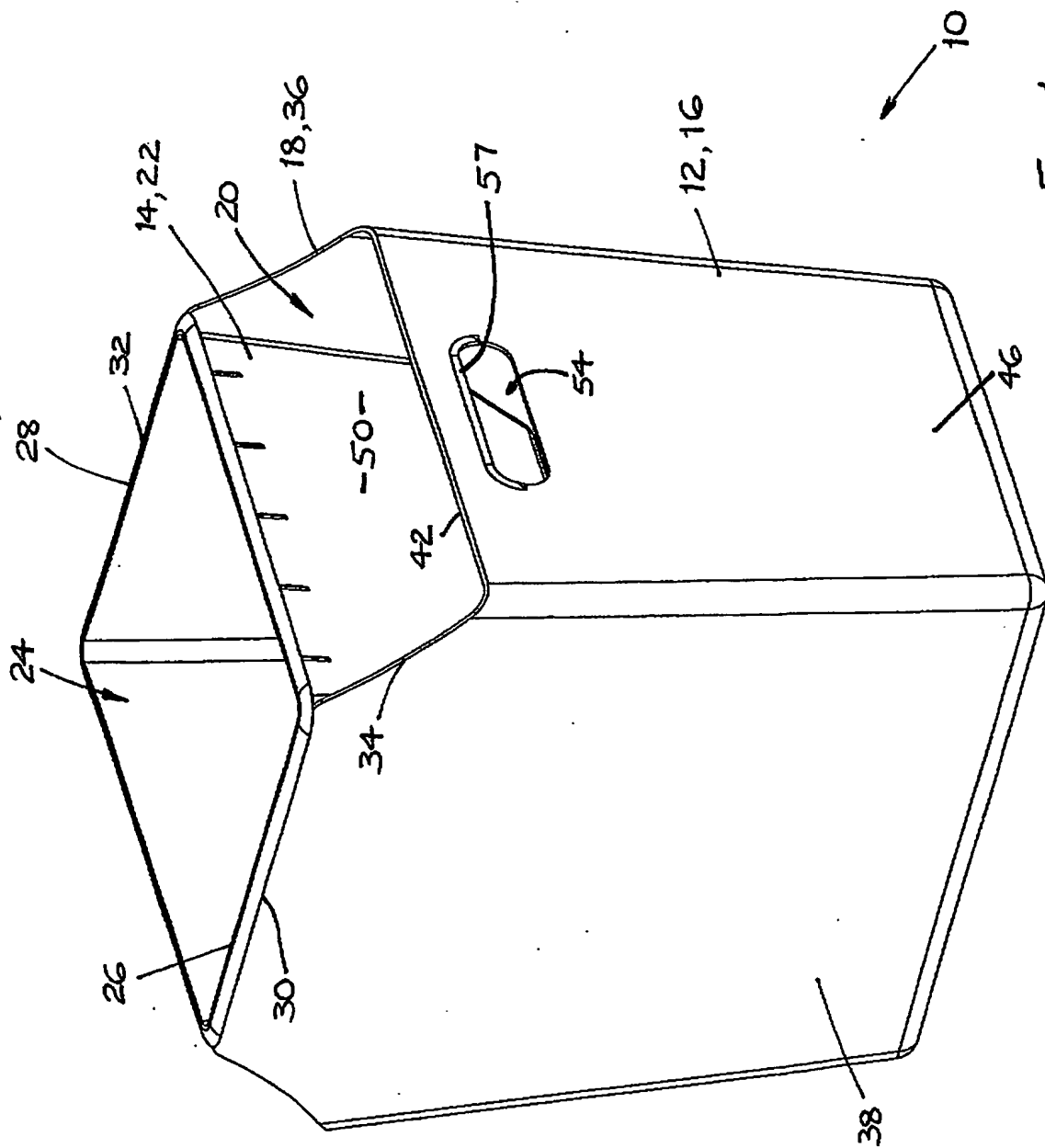


Fig. 1

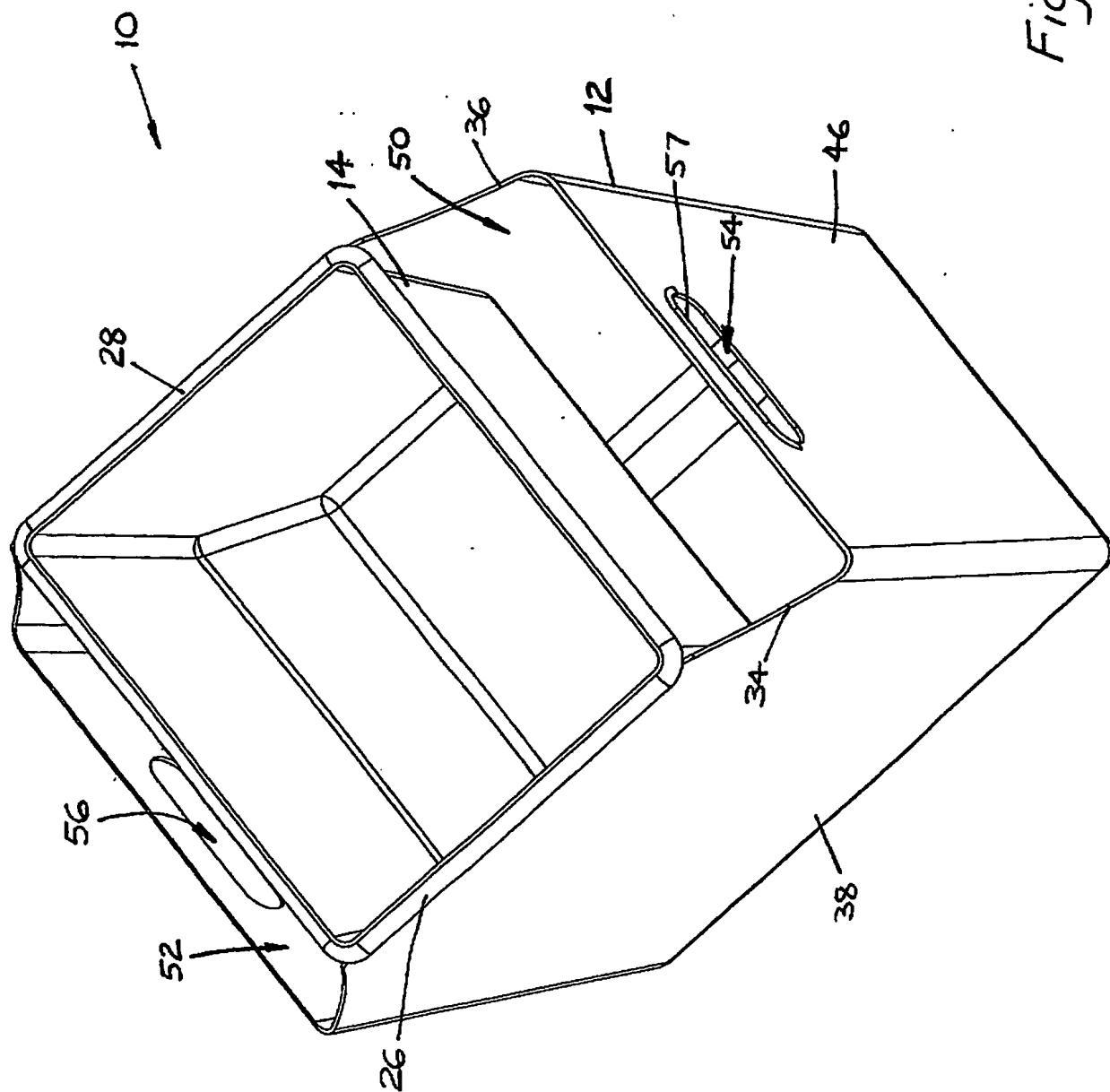


Fig. 2

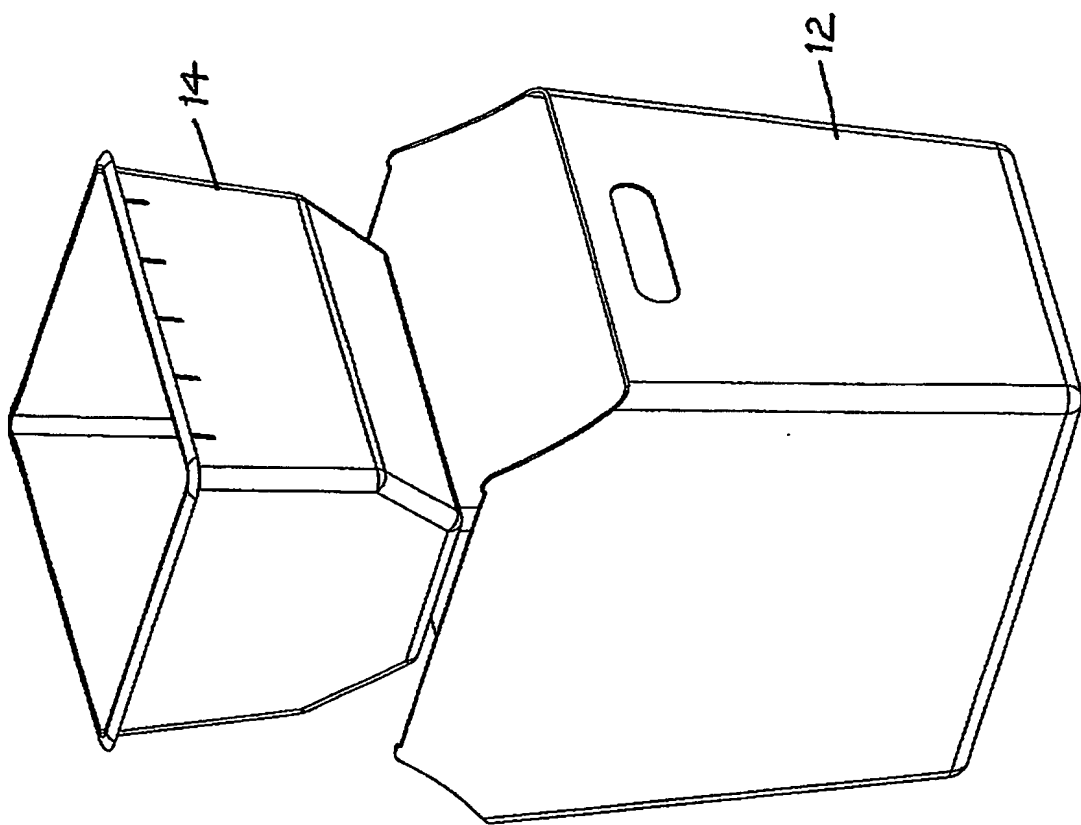
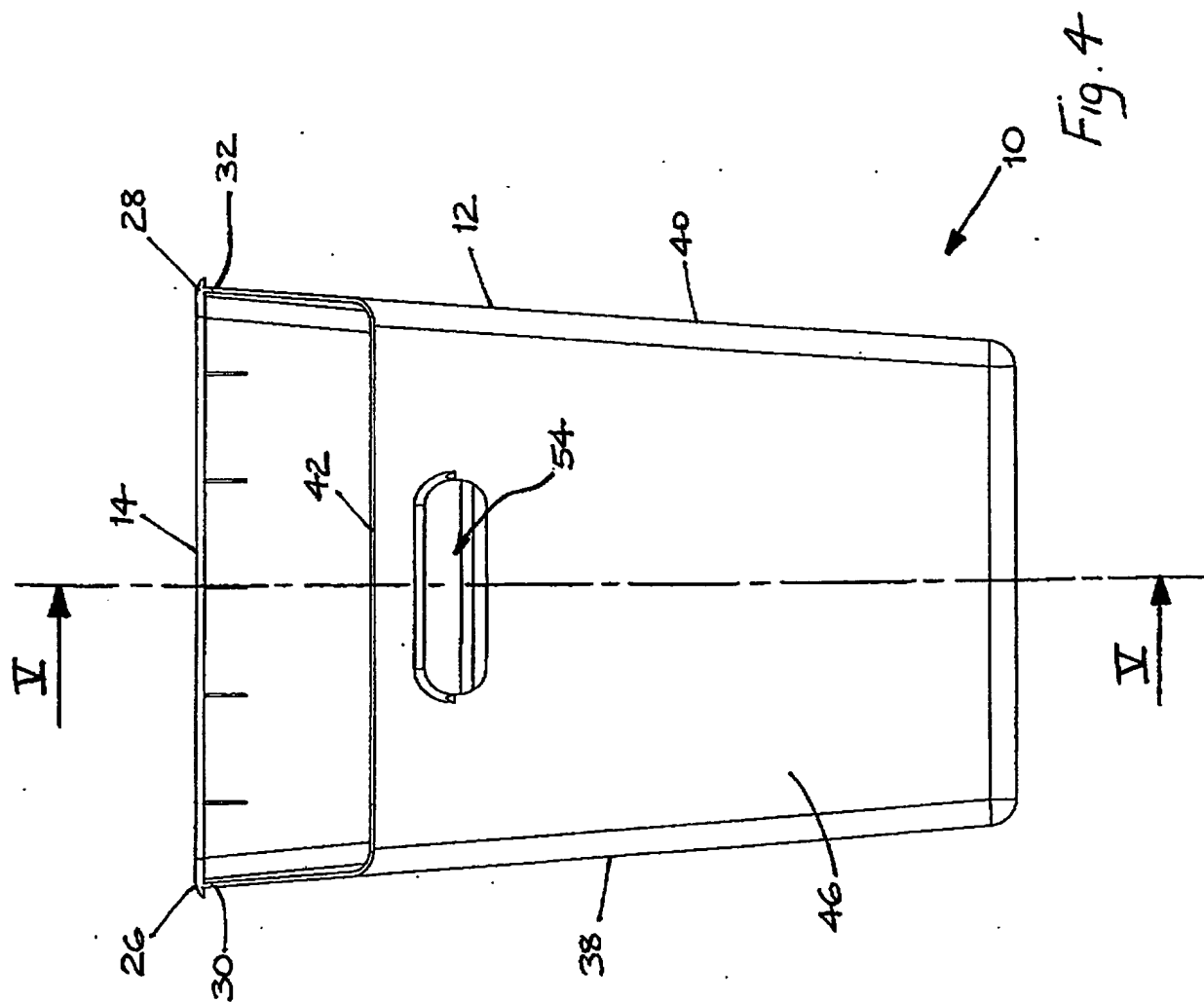


Fig. 3





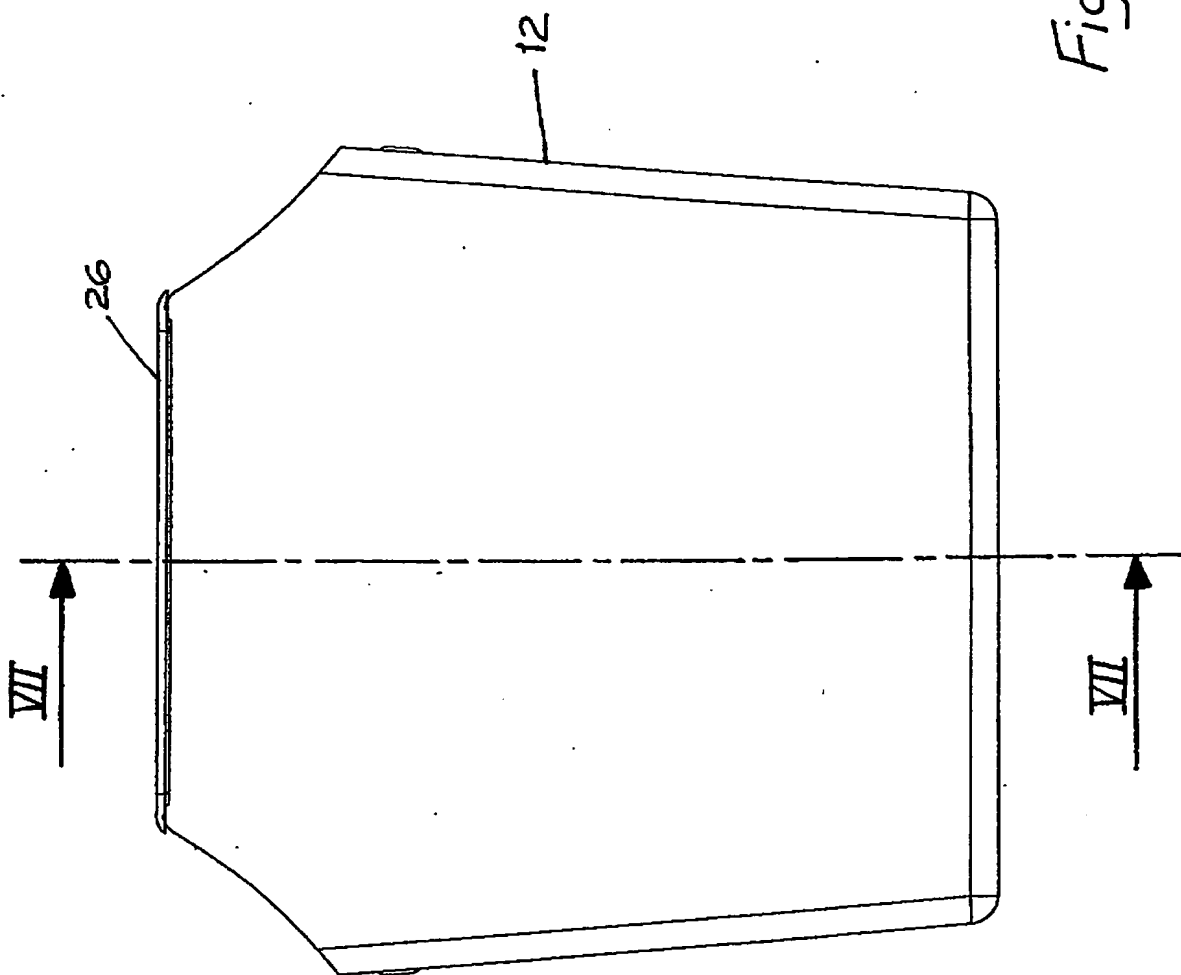


Fig. 6

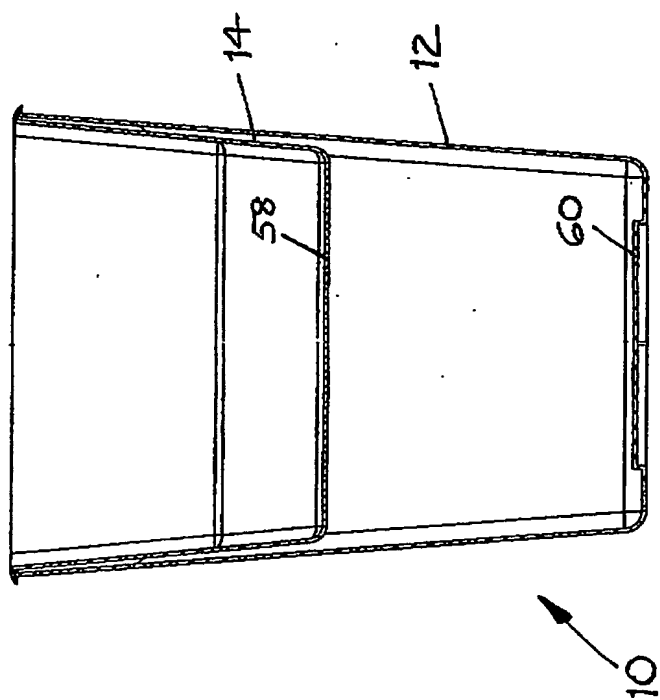
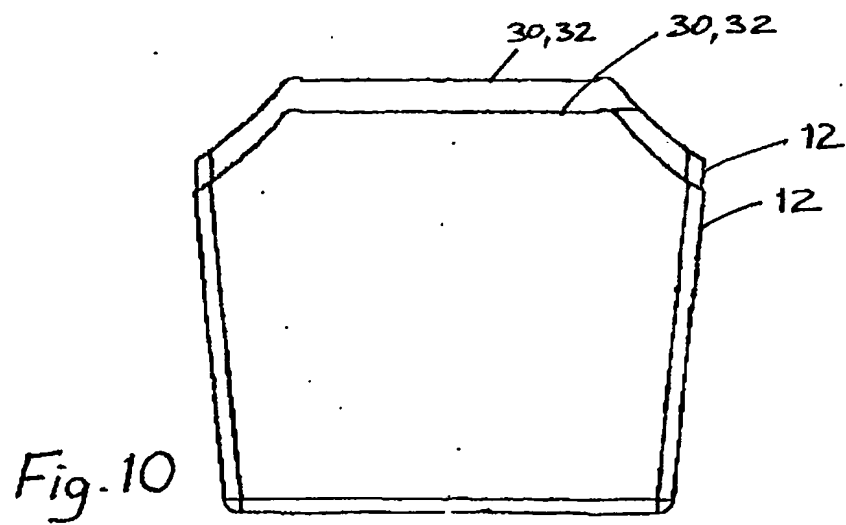
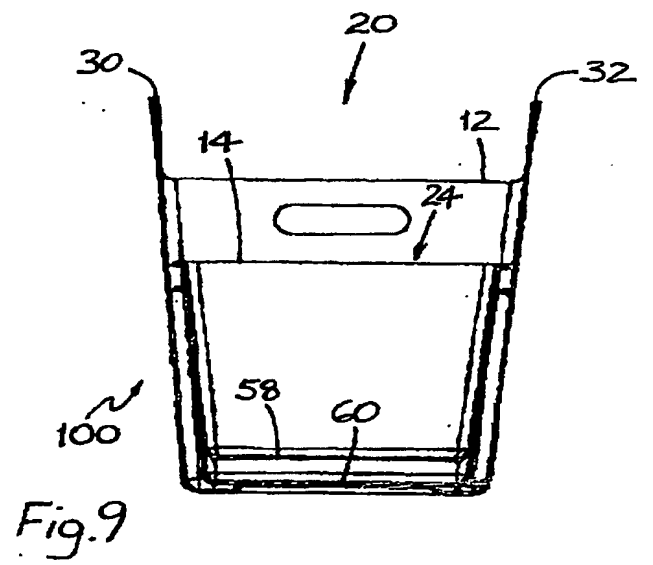
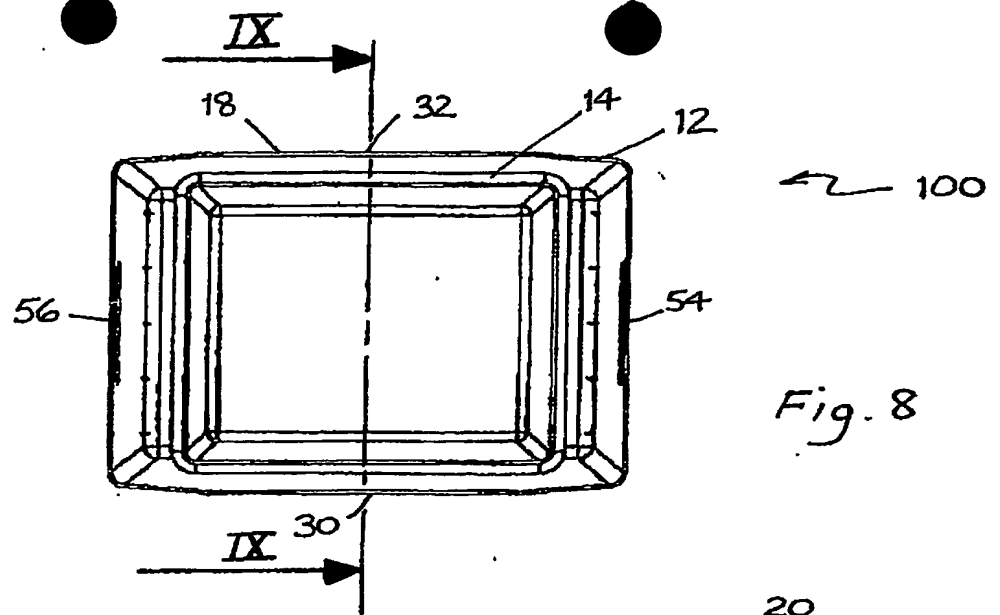


Fig. 7



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**